

Topic - SQL - Operators

What is an Operator in SQL?

An operator is a reserved word or a character used primarily in an SQL statement's WHERE clause to perform operation(s), such as comparisons and arithmetic operations. These Operators are used to specify conditions in an SQL statement and to serve as conjunctions for multiple conditions in a statement.

I. Arithmetic operators

II. Comparison operators

III. Logical operators

I. SQL Arithmetic Operators

Assume 'variable a' holds 10 and 'variable b' holds 20, then -

Operator	Description	Example
+ (Addition)	Adds values on either side of the operator.	a + b will give 30
- (Subtraction)	Subtracts right hand operand from left hand operand.	a - b will give -10
* (Multiplication)	Multiplies values on either side of the operator.	a * b will give 200
/ (Division)	Divides left hand operand by right hand operand.	b / a will give 2
% (Modulus)	Divides left hand operand by right hand operand and returns remainder.	b % a will give 0

II. SQL Comparison Operators

Assume 'variable a' holds 10 and 'variable b' holds 20, then -

Operator	Description	Example
=	Checks if the values of two operands are equal or not, if yes then condition becomes true.	(a = b) is not true.
!=	Checks if the values of two operands are equal or not, if values are not equal then condition becomes true.	(a != b) is true.
<>	Checks if the values of two operands are equal or not, if values are not equal then condition becomes true.	(a <> b) is true.
>	Checks if the value of left operand is greater than the value of right operand, if yes then condition becomes true.	(a > b) is not true.

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< Checks if the value of left operand is less than the value of right operand, if yes then condition becomes true. (a < b) is true.

>= Checks if the value of left operand is greater than or equal to the value of right operand, if yes then condition becomes true. (a >= b) is not true.

<= Checks if the value of left operand is less than or equal to the value of right operand, if yes then condition becomes true. (a <= b) is true.

!< Checks if the value of left operand is not less than the value of right operand, if yes then condition becomes true. (a !< b) is false.

!> Checks if the value of left operand is not greater than the value of right operand, if yes then condition becomes true. (a !> b) is true.

III. SQL Logical Operators

Here is a list of all the logical operators available in SQL.

Sr.No. Operator & Description

- 1 ALL The ALL operator is used to compare a value to all values in another value set.
- 2 AND The AND operator allows the existence of multiple conditions in an SQL statement's WHERE clause.
- 3 ANY The ANY operator is used to compare a value to any applicable value in the list as per the condition.
- 4 BETWEEN The BETWEEN operator is used to search for values that are within a set of values, given the minimum value and the maximum value.
- 5 EXISTS The EXISTS operator is used to search for the presence of a row in a specified table that meets a certain criterion.
- 6 IN The IN operator is used to compare a value to a list of literal values that have been specified.
- 7 LIKE The LIKE operator is used to compare a value to similar values using wildcard operators.
- 8 NOT The NOT operator reverses the meaning of the logical operator with which it is used. Eg: NOT EXISTS, NOT BETWEEN, NOT IN, etc. This is a negate operator.
- 9 OR The OR operator is used to combine multiple conditions in an SQL statement's WHERE clause.
- 10 IS NULL The NULL operator is used to compare a value with a NULL value.

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11 UNIQUE The UNIQUE operator searches every row of a specified table for uniqueness (no duplicates).